

# THE KEEPER

*July - Aug 73*

BECK & DEMETER

## AAZK BULLETIN



**July / August 1973**

**American Association of Zoo Keepers**

# AMERICAN ASSOCIATION OF ZOO KEEPERS

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All Memberships include subscription to THE KEEPER.

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THE KEEPER  
NATIONAL AAZK BULLETIN



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## EDITORIAL

### IMPORTANT CONFERENCE NOTE

Members of AAZK are advised that important issues will be discussed and voted upon at the business session of the 1974 National Conference at Chicago. Members voting will represent total AAZK vote as National delegates. All AAZK members are urged to attend this conference.

### BE AN AAZK EARLY BIRD

Soon you will receive a letter informing you of our 1974 advanced payment program. We urge your support of this program to help us bring you better services in the coming months. Your membership renewals under this special offer will actually save you money. Watch the mail!

### NOTE OF THANKS

AAZK Headquarters extends a sincere thank you to Mr. Chris La Rue and his helpers for the continuous task of updating our computed mailing list. This is not an easy task to perform. Also, a special thank you to the Topeka Chapter for financing the cost of mailing labels for our national publication. (Dick Sweeney, AAZK Hq.)

Mr. Richard Sweeney  
Executive Secretary  
American Association of Zoo Keepers  
8024 Tommy Drive  
San Diego, California 92119

Dear Mr. Sweeney:

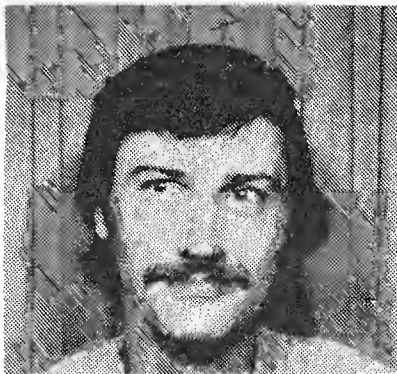
You will be pleased to know that last week Senator Mark Hatfield introduced S 2042, which is the companion bill to HR 1266, my Zoo Bill. This should give us a good boost toward getting some action on this legislation, and I hope that you will urge the Association membership to contact their Senators to urge their support for the bill.

With best wishes, I remain

Sincerely,

G. William Whitehurst  
Congressional Representative  
2nd District, Virginia





## Concepts of Zoo Construction

by Phil King and Graeme MacKendrick

Assiniboine Park Zoo, Winnipeg



I wonder how many of us have wished to have been involved in the construction of certain animal housing facilities in which we work and have also complained bitterly about many inadequately equipped exhibits. The fact is, that just about all zoo keepers have had this feeling at some time or other.

The trouble remains that inadequacies found after construction cannot be blamed on one individual or any particular trade or profession. It is sufficient to say that any mistakes found or necessities neglectfully omitted from the finished exhibit only goes to prove the lack of cooperation and/or understanding shown by those responsible for its construction.

When contemplating the construction of a zoological garden there are many things of equal importance to be considered. No matter who is involved in the design and construction, we think it is important that all involved must try to reach an understanding as to what the function of the Zoo must be, other than the most obvious: entertainment. Although entertainment is the foremost function of a zoo, it seems to be forgotten that although the public is given access to locations in the zoo which may be called viewing areas, they are biological and actual intruders into the animals' privacy and living spaces (this also includes the keeper).

If it were a simple matter of merely displaying animals to the public for enjoyment (and most often ridicule), then all that is required is a row of cages, completely void of all imaginative design and scientific understanding. We would also not require the services of those specialists such as biologists, zoologists, botanists, veterinarians, etc.

The fact remains, that specialists are needed to ensure that the animals' requirements are sufficed. This is important for obvious reasons: reproduction, good health, psychological stability and numerous others which undoubtedly cannot be comprehended by the lawyer, engineer and councillor whose main concerns seem to be money and how to "conserve" it, safety of the public and publicity; all of which are in themselves important, but can be accounted for exactly. Whereupon, the cause of an animal's death through boredom from a lack of environmental stimulus and the initial lack of knowledgable design is no less criminal than a lack of public safety and undoubtedly is a waste of money.

Moreover, suggestions put forth by interested keepers can sometimes provide many valuable details which could be helpful in reducing the degree of the crimes mentioned above. More often than not, however, these suggestions are blatantly ignored.

It should be obvious that although an exhibit or building presents a pleasing aesthetic appearance, it is not necessarily practical from the maintenance point of view. Keepers, being only human, are prone to human tendencies, and thus it should be remembered that the more practically designed the exhibit is, the better it will be maintained. This maintenance, in most cases, is a daily routine and the necessary equipment to make the work as convenient as possible should be provided at the beginning.

There are many ways of looking at the proposed design of a zoo plan. We believe that before a plan is drawn up, one must place in order of importance, the points in planning procedure.

As a zoo is built to be a living space for captive "wild" animals, that in turn are displayed in a fashion so as to entertain the public, then the design of each enclosure or complex of enclosures should be considered first. This consideration includes access for feeding, cleaning, loading, separation of animals, and the maintenance of the enclosure and housing facilities. As the keeper is in close contact with the animals, the need for adequate safety precautions for both animal and keeper must also be considered.

The second most important point is public access and safety. This would include governing where the public may wander and what precautionary measures should be adhered to, in order that their safety is ensured, while allowing them to use their own discretion. We must ask ourselves such questions as to what kind of restrictions can be placed on the public, and how they can be enforced so as not to insult or hurt their feelings. By restrictions, we do not mean a stone wall with spikes, or a barred fence, or an armed guard with dogs. A restriction does not have to be so hard and unnatural. They must blend in with the atmosphere set up by the fact that it is nature a zoo is trying to display, and not the inmates of a jail.

If everything does blend in, then the public might understand, as no doubt many do now, how important it is to show and demonstrate respect for a display of conserved nature which hundreds of people today are unfortunate enough to have never seen, and might never see.

It is our intention to write a series of articles on "Concepts of Zoo Construction". The success of this series, however, will depend on the support we receive from you, the membership.

We ask that you write to us with information pertaining to zoo construction in your zoo and also ideas which you wish to have expressed (and will receive full credit for). Your information and ideas, we hope, will help to compile data on zoo construction from the keeper point of view. With this data, we hope to indicate to zoo administrations, the extreme interest and wealth of knowledge shown by keepers in respect to the buildings in which we work, and the animals must live.

Editor's Note: Please forward any information and ideas you might have on zoo construction to Mr. Graeme MacKendrick, 872 Royal Road, Winnipeg, Manitoba R3R 0x1.



## Giraffe Longevity

by Marvin Jones

The oldest living giraffe is a female named TINY which to the best of my knowledge, is still living, (at this writing as of June 1971) in the Perth Zoo in Western Australia. She was born there in 1937, which means that she now is 34 years old. She is believed to be of the Cape race, as the Perth Zoo received its early stock from that region.

The Sydney Zoo still had living in June 1969, a female that arrived there 30 June 1944. One died on 10 January 1969 at Whipsnade Zoo, England that arrived there 18 October 1946. The race for either of the above is not known, since many zoos simply list their animals as "Giraffe". For the Nubian Giraffe (nominate form *G.c. camelopardis* Linnaeus) there are records quoted by Flower of one born in Antwerp Zoo in June 1878 that died 22 June 1906, and one born in London Zoo 22 April 1846 that died 22 January 1867. A female in the Berlin Zoo that arrived 24 August 1883 died sometime in 1900; one lived in Paris from 1879 to 1899, two males at the Bronx Zoo lived from 22 November 1913 to 13 May 1935 and the other was born there 21 January 1929 and died 22 December 1960. National Zoo Washington had a female imported from Port Sudan 13 October 1937, died 2 December 1959.

Most zoos exhibiting the Angolan race have only acquired their stock in relatively recent years so that not enough time has elapsed to make their longevity very remarkable.

It is believed that many of those zoos having Nubian Giraffe really had specimens of the Kordofan Giraffe, (*G.c. antiquorum* Swainson) which has been bred for many years at Antwerp Zoo, and in fact, this zoo probably has the best records outside of Colorado Springs for long sustained captive breeding. One female of this race was quoted by Flower as living in London Zoo from 20 September 1907 (born there then) to 4 November 1930. There are several records of the Cape Giraffe (*G.c. giraffa* Boddaert—*thornicrofti* Lydekker, *wardi* Lydekker, *capensis* Levaillant) having been in captivity, including a pair now in the Cologne Zoo as well as Pretoria, but longevity in general has not been very notable.

The Uganda or Baringo Giraffe (*G.c. rothschildi* Lydekker) which closely resembles the Reticulated form (and several zoos now supposedly having Baringo probably have aberrant Retic's) has done very well in captivity. Unless she has recently died, the Bronx Zoo still has a female that came there 23 August 1946. This was a commonly bred race in America just after World War II but somehow never became established. There are now almost 50 in England on the various safari parks owned by Chipperfield, and it is breeding well at several such as Longleat and Woburn.

The Nigerian Giraffe (G.c. peralta Thomas) has never been exhibited in America to the best of my knowledge but has been seen in several European collections. A male at Munich's zoo (which is bred to female Reticulateds) has been there 10 years, and one lived at Edinburgh Zoo for several years.

Probably the most common race to be seen in America today is the Reticulated (G.c. reticulata de Winton) which is a relative newcomer actually to zoos. It was a rare zoo exhibit prior to WWII.. Now, it is bred by many zoos both in the U.S. and overseas and has been unfortunately bred by several zoos with the Masai Giraffe. Crosses of the two usually look more like light Retic's than Masai, and are fertile. London Zoo had a female Retic from 14 September 1949 until 9 February 1970; Columbus Zoo, a male 6 February 1941 to 28 October 1963; Milwaukee, a male 21 August 1940 to 23 November 1958; Washington, a male 21 June 1939 to 13 November 1956; and one female now living at the Munich Zoo arrived there in September 1950. She has bred often with the male Nigerian. It would, of course, be interesting to keep track of the many Retic's being born in America to see just how many generations we can go. It is a matter of some interest that zoos having successful colonies (i.e. Colorado Springs) on losing their breeding males have secured another wild caught male rather than use a zoo bred male. However, there are several 2nd and 3rd generation groups now going.

One of the most marked races is the Masai (G.c. tippelskirchi) (Matschie) from East Africa. The Retic comes from Ethiopia and this race then comes into being where the Retic stops its southward limits, so that there is talk of interbreeding between the two in the wild, however, I have yet to see any photo documentation of this. They do interbreed in zoos, either deliberately or by accident. Detroit had a fine Masai for many years that came in May 1945. I am not sure just when it died. St. Louis also had one for over 20 years. There now is a very large and handsome male at the Kansas City Zoo.

---

We need another and wiser and perhaps a more mystical concept of animals. Remote from universal nature, and living by complicated artifice, man in civilization surveys the creatures through the glass of his knowledge and sees thereby a feather magnified and the whole image in distortion. We patronize them for their incompleteness, for their tragic fate of having taken form so far below ourselves, and therein we err, and greatly err. For the animal shall not be measured by man. In a world older and more complete than ours, they move finished and complete, gifted with extensions of the senses, we have lost or never attained, living by voices we shall never hear. They are not brethern, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendor and travail of the earth.

Henry Beston - 1928





## Giraffe Observations

by Gay Kuester and Pat Stout  
Brookfield Zoo



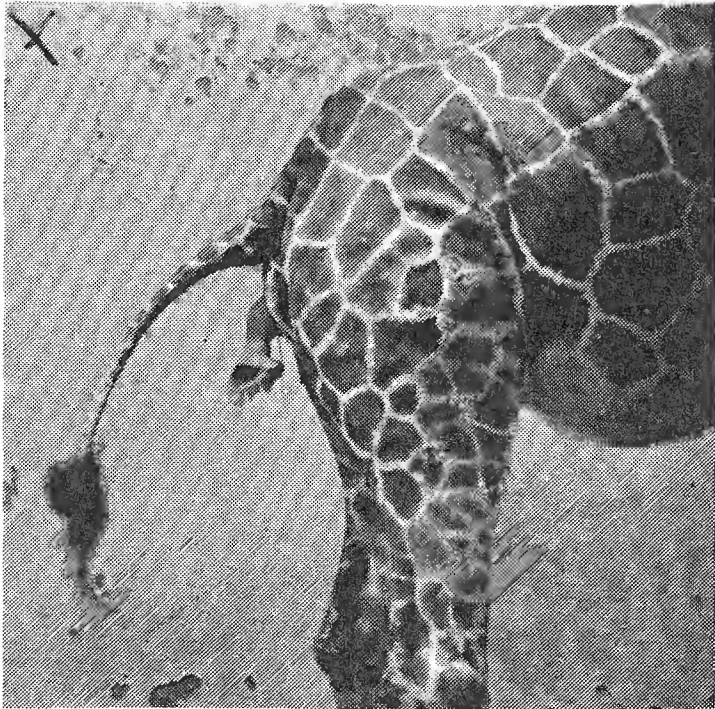
Brookfield Zoo has had fairly good success in breeding giraffes. To date, we have had 26 giraffes born since September 4, 1940; 18 of them being born to our present herd since May 2, 1957. Most of these giraffes have been born inside our Giraffe House, in our large exhibit stall which measures about 23 feet from front to back and 26 feet in length, with the front barrier consisting of bars.

During 1969, three giraffes were born at Brookfield. Notes were taken during two of these births.

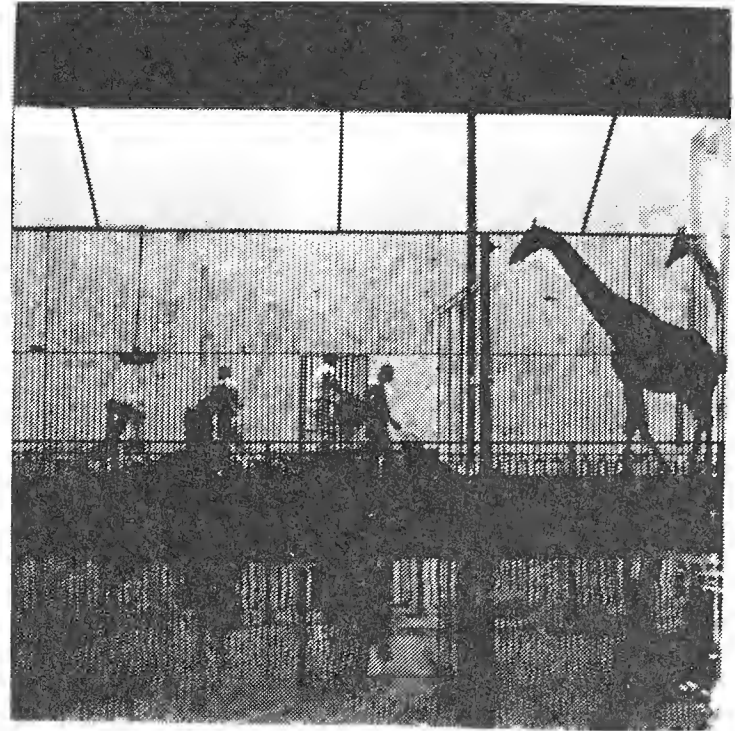
Our 16-year-old female Reticulated giraffe "Pamela" was noticed to be in labor on the morning of September 2, 1969. Gay Kuester took the following notes during the course of the birth:

- 9:20 a.m. — First leg presented - fluid dripping profusely.  
Much preparation. Sand put down and straw scattered around stall.
- 10:22 a.m. — Drinking water frequently - constant pacing - still only one leg.
- 10:25 a.m. — Drinking again.
- 10:32 a.m. — Licked at protruding foot.
- 10:33 a.m. — Again licked at foot.
- 10:45 a.m. — More fluid and licking at foot.
- 10:46 a.m. — Licking.
- 10:47 a.m. — Licking. Constant pacing.
- 10:50 a.m. — Licking.
- 10:51 a.m. — Licking.
- 10:52 a.m. — Licking.
- 10:55 a.m. — Licking.
- 10:57 a.m. — Half-hearted push - licking.
- 10:58 a.m. — Licking at protruding foot.
- 11:00 a.m. — Half-hearted push - licking.
- 11:04 a.m. — Another push - licking.
- 11:10 a.m. — Licking.
- 11:20 a.m. — Still licking.
- 11:21 a.m. — Again.
- 11:27 a.m. — Pushed slightly and licked.
- 11:34 a.m. — Licked and pushed - two legs visible (second foot sort of folded under - just popped out).
- 11:36 a.m. — More licking.
- 11:40 a.m. — Good push.

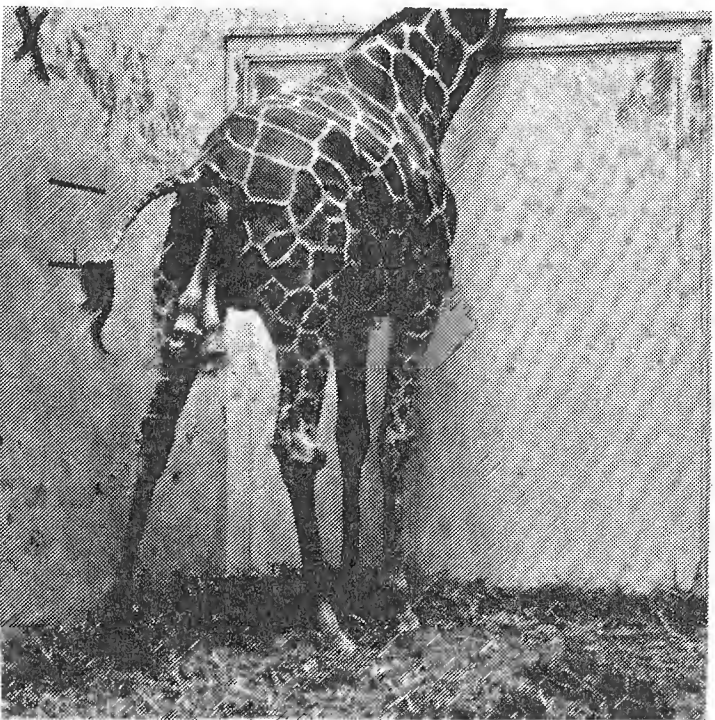
11:45 a.m. — Another push.  
 11:46 a.m. — Protruding legs now crossed.  
 11:47 a.m. — Pushing strongly.  
 11:50 a.m. — Pushing strongly.  
 11:55 a.m. — Pushing strongly.  
 12:00 noon — Strongest push to date.  
 12:01 p.m. — Another try - licking.  
 12:05 p.m. — Another try - licking.  
 12:10 p.m. — Licking.  
 12:11 p.m. — Strong push - nose visible.  
 12:16 p.m. — Pushed - more nose visible.  
 12:20 p.m. — Licking.  
 12:24 p.m. — Licking.  
 12:25 p.m. — Drinking.  
 12:30 p.m. — Strong push - licking.  
 12:35 p.m. — More licking.  
 12:36 p.m. — Drinking.  
 12:40 p.m. — Drinking.  
 12:41 p.m. — Most of the head clearly visible.  
 12:43 p.m. — Licking baby's face.  
 12:45 p.m. — Water broke.  
 12:47 p.m. — Licking head.  
 12:50 p.m. — It's here!!! Baby dropped, neck slightly twisted in fall, with leg draped over it - more waste fluid.  
 12:53 p.m. — Licking and cleaning up.  
 12:54 p.m. — Keepers bet it's a girl!  
 12:55 p.m. — More fluid.  
 1:00 p.m. — Lifting head - sitting up - mother still licking and cleaning.  
 1:04 p.m. — Sitting up - adjusting legs - trying to stand.  
 1:05 p.m. — Mother drinking.  
 1:06 p.m. — Baby still trying to stand.  
 1:07 p.m. — Mother drinking - baby still trying.  
 1:08 p.m. — Mother drinking and baby still trying to stand.  
 1:10 p.m. — Mother drinking.  
 1:20 p.m. — Mother drinking.  
 1:25 p.m. — Mother drinking - baby still trying.  
 1:30 p.m. — Baby struggled up to knees.  
 1:32 p.m. — Baby struggled up to knees.  
 1:35 p.m. — Almost up - fell over - mother drinking.  
 1:37 p.m. — Mother cleaning herself.  
 1:45 p.m. — Baby still trying - ½ way up and falling.  
 1:50 p.m. — Mother drinking again - licking at afterbirth still attached.  
 2:40 p.m. — Drank water.



9:20 a.m.



9:20 a.m.



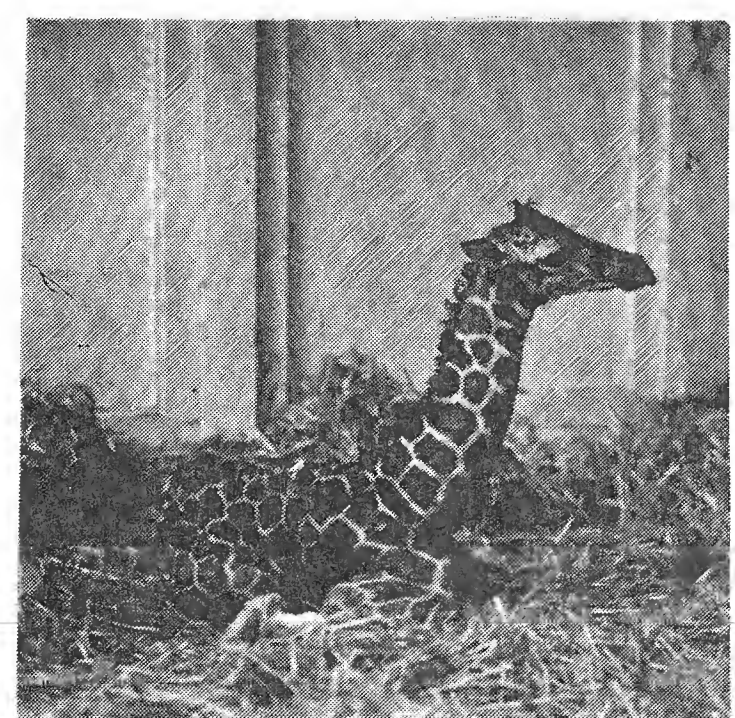
11:34 a.m.



12:01 p.m.



12:53 p.m.



1:04 p.m.

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Photos: Rick Search/Brookfield Zoo



2:45 p.m. — Keeper picked up part of placenta.  
 2:50 p.m. — Shifted mother into side stall.  
 3:00 p.m. — Helped baby up - had her standing until 3:10.  
 3:20 p.m. — Gave baby shot.  
 3:30 p.m. — Baby standing with help.  
 3:40 p.m. — Mother drinking.  
 3:45 p.m. — Baby fell.  
 3:50 p.m. — Helped back on feet - tries to nurse.  
 4:10 p.m. — Baby nursing.

This female Reticulated giraffe was named “Jackie”, and was the seventh colt born to “Pamela”. Sadly, it died eight days later of a kidney malformation.

On September 6, 1969, our nine-year-old female Reticulated giraffe “Dawn” went into labor. Patrick Stout observed the birth and made the following notes:

11:20 a.m. — Dawn started labor  
 1:30 p.m. — Both front legs out about two feet. Dawn walking around calmly - stopped briefly to lick membrane around legs twice.  
 1:37 p.m. — Dawn stopped and defecated a little then resumed walking. Nose is now visible.  
 1:40 p.m. — Dawn stopped briefly - strong abdominal contractions. Head is now all out - more licking.  
 1:45 p.m. — Water broke - giraffe born.  
 1:46 p.m. — More water released.  
 1:48 p.m. — Baby sitting up and trying to get up.  
 1:53 p.m. — Dawn eating a little hay.  
 1:58 p.m. — Baby made strong effort to stand.  
 2:02 p.m. — Another strong effort to stand.  
 2:10 p.m. — Up on all fours briefly.  
 2:18 p.m. — Standing up for about one minute.  
 2:20 p.m. — Standing again.  
 2:23 p.m. — Trying to find place to nurse.  
 2:28 p.m. — Baby fell.  
 2:30 p.m. — Standing again.  
 2:34 p.m. — Trying to nurse - wrong end.  
 2:38 p.m. — Nursing.

This female Reticulated giraffe was named “Joy”, and was the third colt born to “Dawn”. Both “Jackie” and “Joy” were sired by our male Reticulated giraffe “Shorty”, who was born in the Dallas Zoo, October 26, 1965.



# **K**EEPER'S **ORNER**

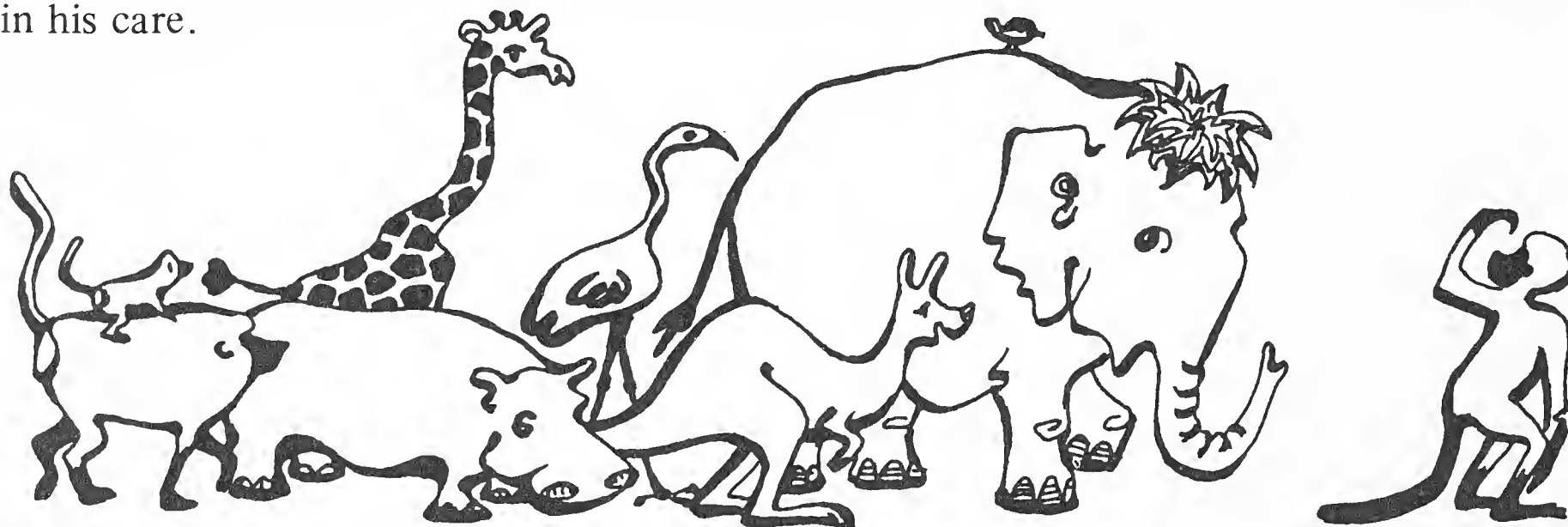
by Ed Roberts, Stone Park Zoo

Today's animal keeper, attendant, guard, animal man or what have you, and I've heard them called a lot of other names too, is now the foremost conservationist in the zoo world. He does not come on the scene overnight. He hits the zoo foundation with all the fury and might of a well-softened marshmallow. He enters this field with a sense of hesitation, for he really doesn't know for sure, in his heart, whether he's going to like it or not. He is apprehensive to say the least. He has, as yet, to appreciate the psychology of animals because he hasn't been on the scene long enough. Yet, he thinks he wants it, so bravely, he ventures forth—somewhat scared but in high hopes that this will be the job for him. He's given grimaces of disgust by his friends, his peers, his girl friend and his family. They cannot, for the life of them, understand why he wants to be a "krap-kicker" in a smelly zoo compound, when he can easily go out and earn more than twice what he's going to get for starting pay. Well, he knows this but something is pushing this guy, he doesn't know what it is yet, but some inner force tells him to stick it out. So he does.

In the first few weeks of breaking in, a more clumsy, doddering, uncoordinated individual has never before been seen. He manages to drop feed buckets (full) all over the place especially on his own feet, gets tangled up in hose lines getting himself soaked and the unsuspecting public too, steps on rakes, shovels, brooms, tips over wheel barrows, bangs into doors, trips over bales of hay and other obstacles, (put there, he thinks, by the devil himself), bruises more fingers, strains more muscles and gets twice as dirty than any three men in the zoo. He's been ostracized by his friends at the corner pub, by his family at home because he smells like a zoo and all in all, he's pretty disgusted at the way things are turning out. But, he sticks with it—the fool. A year goes by and all of a sudden, an ANIMAL MAN is born.

He's been assigned a group of ungulates, spread around four pens. Now, the change is apparent. No longer do we have the clumsy dolt that started here a year ago. We have now an animal keeper who observes his charges. Now he takes notes on the behavior patterns, their gestation periods, their births, their sicknesses and their deaths. He watches their diets and eating habits with a jaundiced eye. He always makes sure their hay is clean and leafy. He makes sure their quarters are clean and odor-free and disinfected each day. He observes the aggressive brutes and the docile ones and separates when necessary. He keeps the tools of his trade hung up and in good repair. He now polices the outside perimeter of his pens, making sure his animals are not getting things from the public that might hurt their digestive processes. You know how the public likes to feed animals. He now reads up and familiarizes himself more and more about his animals. He is now able to converse

intelligently on many aspects of an animal's life and behavior. He immediately reports any sick animals to the head keeper, who notifies the vet. Now, he can help attend any sick animals and carries out prescriptions ordered by the vet. He keeps himself informed on other phases of animal care by joining a professional zoo keeper society, the AAZK, and helps other keepers in the same line as he by corresponding with them through the national publication, *The Keeper*. He wants to be a professional zoo keeper, now, for he is at that point in his life where professionalism means a great deal, for he is looking for recognition. He has found his niche in the zoo world, and he *will* succeed, for he has the patience, understanding, integrity of purpose and most of all, the enthusiasm to work with and enjoy the animals entrusted in his care.



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# Keeping Small Zoos Alive

(NOTES ON THE BOISE CONFERENCE)

by Curtis Williams, Boise City Zoo

I think the first thing I would like to say about the conference, is that I was more than a little amazed at how well it went. I know it wasn't due to any careful planning on my part. It was due entirely to the wonderful group of zoo people who came and made it a success. And the very fine local people who gave me so much help and support and made every effort to see that everything went smoothly. Such as the Lt. Governor of Idaho, Jack Murphy; Mayor Jay Amyx of Boise; Morlan Nelson; Dr. John Lee; the Idaho Zoological Society Members; the Boise City Zoo staff; Mrs. M. and the Boise State College people; Mrs. Barbara Young of the Boise Chamber of Commerce and many, many others. I would like to say a very special thank you to all of them.

What did we learn about keeping small zoos alive? That there are no small zoos, as far as problems. All zoos have the same or similar types of problems. And the continued existence of any zoo, big or small, is the concern of all people. Not just zoo people, for we are dealing with the most important subject . . . life. It is a different form than our own, but no less important.

Soon after I began working as a zoo keeper, a young boy asked me a question that I have thought about ever since. "What does the word ZOO mean; what does it stand for?" I would tell him now, that it means and stands for a man-made place where humans try to preserve and perpetuate Life-Forms other than human. It is a small living world of animals where humans may come and observe the wonderful living creations of Nature at close range. And that, hopefully, after seeing these animals up close, they will leave with a better understanding of why they should care about the preservation of the world as a whole.

With all the fine zoo people who were present at the conference and speakers such as Gary Clarke of Topeka, Robert Elgin of Des Moines, and our own Morlan Nelson and Dr. John Lee, I don't know how anyone could have gone away from the conference without being a little more fired-up about zoo keeping. I certainly was. Especially by what Gary Clarke said about the word "cage", being a dirty word that should never be used by a zoo employee. It answered, for me, the question of whether a zoo animals' habitat should be a natural-type habitat or one that gives the public the best chance of "seeing" the animal. It most definitely should be a natural-type habitat, always! For it will contain the "living" animal. And the public must be made aware of this fact. As proof, I offer two statements that I hope Gary will use in his wonderful talks. "What a dumb animal!" And, "what's supposed to be in here?" These two statements and my own observations of the public's behavior and attitude have proven to me that too many people think they must be able to "see"

the animals, simply because they came to the zoo for that reason. And yet, they would never think of standing in front of their own home so that anyone who came by and cared to, might be able to "see" them. In other words, the animals in a zoo are "living". And "living" animals should be "seen" in a natural-type habitat. Otherwise people will think them no more real than a photograph, movie, or a TV program. And will only consider the animal as a non-living "thing" for their amusement. And I don't believe that amusement of the public is reason enough for having a zoo.

As long as there are zoo people who continue to help educate other zoo people and the public, hopefully, there will continue to be life forms other than the "dumb human animal" who has killed off so many other animal life forms.

The only regret I have concerning the conference is that all AAZK members couldn't have shared in the experience. Last but not least, we made \$203.13 less any expenses Headquarters might have. This will be applied to AAZK's national deficit. So you see, AAZK members profit in still another way by participating. Let's get rid of that deficit and move on. See you in Chicago in '74.

This was supposed to be a write-up of the conference and not a lecture, but there is really no way I could show with words the feelings that were generated by the talks or the sights seen on the field trips and in the slides and movies. It was a gathering of people who care about their work, zoos, and life in all its forms and who cared enough to come to Boise to help make this conference and its theme a success.

*ADVANCEMENT - EDUCATION - ENJOYMENT - INVESTMENT  
-WHATEVER YOUR REASON-*

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bers and Associates.





# DATA POOL

Edited by  
Pat Sammarco, Lincoln Park Zoo

Keepers are the basic and probably most important part of the zoo operation. We have the direct responsibility for the animals' well-being, and the greatest opportunity for observation. A Keeper knows what is normal for each animal in his care, and should be best at predicting its behavior. He knows food preferences, how to fool or coax an animal into taking medication, how best to capture or restrain it, signs of impending birth or cycling, and generally what is usual or unusual behavior. A Keeper should be the practical expert on the animals in his charge just as the zoologists are the theoretical experts.

If little bits of knowledge, which individually seem insignificant, were shared, if "secrets" were told, our whole profession and indeed the zoo world, would benefit. Someone trying desperately to give oral medication to a Potto might benefit from knowing that at least one Potto has a passion for anything vanilla flavored. Water barriers work for most, but not all primates, some are great and eager swimmers. Reptiles can be sedated by cooling them to a lethargic state.

Many small facts or theories shared can become a treasury of first-hand knowledge of animal care. Being able to get a desired response from an animal with the least amount of stress and physical danger is primary to our profession. Getting new animals to eat, to adapt to captivity, to breed successfully - these are our concern, our responsibility. Of course, some animals respond to only one Keeper. This rapport is unique and cannot itself be shared, but the methods used to establish this relationship could be duplicated, and perhaps have the same results on another animal/keeper pair. One Keeper's experience with one animal is a part of the total animal keeping puzzle. To become more proficient and professional in our animal care, we must gather together all possible bits of data; if the data pool is filled with accurate, first-hand information, it will become a source of animal know-how from which we will all benefit. With feedback enough, data will be organized into a notebook form, available as a reference to every Keeper. Imagine, having at your fingertips, all the experiences of every Keeper to use as a guide in your profession.

## To Determine the Overall Opinions on Prepared vs. Fresh Food Diets

Fresh food means natural foods, vegetables, fruit, meat, eggs, hay, grain, etc.

Do you feed mainly/ all fresh foods \_\_\_\_\_ all prepared foods \_\_\_\_\_  
Did you feed

or an approximate ratio of a combination of both \_\_\_\_: \_\_\_\_

If your diets have changed from one category to another, what were the effects of the change on the animals. In better overall condition\_\_\_\_worse\_\_\_\_same\_\_\_\_  
Were there any difficulties in changing the diets of established animals? \_\_\_\_\_  
How well do new or young animals adjust to the present diet? \_\_\_\_\_  
How often do you feed live and/or fresh killed animals? \_\_\_\_\_  
Which do you feel is the best diet?\_\_\_\_fresh only\_\_\_\_prepared only\_\_\_\_combination

As soon as possible, please send data from previous questions and the present topic to Pat Sammarco, 5206 N. Ludlam, Chicago, Illinois 60630.

## **Plan now to attend the TRI-ZOO CONVENTION in Chicago in '74**

Your \$35.00 registration fee will cover:

One full day (including lunch and transportation) to and from Milwaukee Zoo and a side tour for wives to the Milwaukee Botanical Gardens.

One full day (including lunch and transportation) to and from Brookfield Zoo.

One full day (including lunch and transportation) to and from Lincoln Park Zoo. Side tour for wives also available in Chicago.

Cocktail party and banquet.

Just think — 3 zoos, 4 excellent meals (not your regular box lunch), 300 miles of bus transportation plus a cocktail party and banquet for only \$35.00 — try to top that price anywhere today!

Also, for registrations sent in before December 31, 1973, you will receive a 5½" melmac plate with a full color photo of a mandrill. Don't delay. Send your registration to: Gay Kuester, Brookfield Zoo, Brookfield, Illinois 60513.

# Shocking Business of Electricity

By Ronald Kaufman  
Topeka Zoo

Electricity—on the outside, it's that wonderful, tingly stuff that enables the nation's zoo keepers to perform many of their variety of tasks. It feeds the blenders, stoves and hotplates, refrigerators, can openers, and sharpeners found in the diet kitchens. It drives the saws, juices the drills and stimulates the sanders. It's the kindling force in the lights, heaters, lamps and pumps.

But, flick off those lights and look at the darker side. Electricity is an intensely powerful dynamo that can transform a careless keeper into a carefree keeper. If it does not kill, its tingly tentacles can burn, paralyze or render a keeper unconscious. Under certain circumstances, as little as 60 milliamperes of current can be fatal. That's about as much current as is required by an ordinary 7½ watt Christmas tree bulb. Less than a 1 second exposure can do it.

On the brighter side, several of your co-workers can attest to having survived a much higher ampere exposure. The reasons behind such occurrences lie in the quality of exposure. The two most dangerous electric shock paths are those that pass through the chest from one arm to the other or, from an arm to a foot. Should the connections at either end be the slightest bit faulty, the effect of a maximum dose of electricity will not be fully realized. Under such conditions, death may not result, but temporary unconsciousness or burns might.

How can a keeper protect himself? That old saying, "an ounce of prevention is worth a pound of cure", is a keeper's guide to personal safety. Here, it can mean the difference between life and death. The greatest dangers occur in the dark, damp recesses of the older buildings that seem to characterize many zoos; heat, humidity, fungus, mice and rats serve to hasten the deterioration of insulation surrounding hot wires.

1. Check insulation on wiring on tools, lamps, pumps, heaters frequently. REPLACE any that are cracked, frayed or otherwise damaged. A drop of water on seemingly harmless frayed insulation can mean a literal hotbed.
2. Inspect wiring in stoves, refrigerators, hotplates and other appliances. Many accidents are caused by bad wiring or insulation leaking electricity to the metal frame or housing in appliances.
3. Properly ground equipment. Although this won't insure against accidents, it can help lessen shock.
4. Keep water puddles cleaned up. Avoid hosing around open heaters, heat lamps or unprotected outlets.
5. Use only UL approved appliances and equipment.

The preceding tips are only a few of the many precautions that can be taken to reduce the chance of an electrical accident occurring. Electricity can be a valuable tool and a dangerous menace. Use care when working around it and help take some of the shock out of it.



## BEHIND THE GUARDRAIL

Edited by  
Larry Sammarco, Lincoln Park Zoo

The New Mexico Department of Game and Fish has kindly given AAZK 100 copies of a publication entitled "Investigations Preliminary to the Release of Exotic Ungulates in New Mexico". This publication is free and may be obtained by writing to Michael Dee, 1141 Western Ave., Glendale, California 91201.

### News from Lincoln Park Zoo

Another successful birth of an endangered species, five snow leopards (1/4) are under the watchful eyes of Tony Martinez, Senior Keeper in the Lion House. All are doing well and have recently been moved from the isolation area to a larger enclosure in the Lion House. On June 22, one fennec fox was born in the Small Mammal House and is doing well.

We are presently hand-raising our second Sika deer, born July 18; the baby and her nine-week-old sister may both be seen in our Children's Zoo.

The Lincoln Park Chapter would like to take this opportunity to invite our fellow AAZK members and brother keepers to our annual picnic on the 8th of September, and to a seminar on the following weekend, September 15. The topic of the seminar being: The Place of Research in Zoos. For further information concerning either event, contact Larry Sammarco.

### News from St. Louis Zoo

Jim Wilson is the new Head Keeper in the Bird House.

Births: one reticulated giraffe, four tigers (Siberian/Bengal cross 3/1), and a litter of four lions; but this litter is a little different in that on March 12, the same lioness gave birth to two cubs. Two weeks after the birth, she came into a heat and was rebred by the male, resulting in the July 15 birth of the four.

### News from Los Angeles Zoo

The L.A. Zoo has initiated an Animal Keeper training program under the instruction of Principal Keeper, Ed Alonso. The first classes involved the techniques of hoof trimming.

Animal Keeper Bob Barns is in East Africa on a leave of absence for six months.

Births for June included one Arabian oryx and a pure second generation golden lion marmoset.



## ZOO REVIEW

By Pat Stout, Associate Editor

Here are two books that are useful sources of information on the identification and care of turtles.

Turtles of the United States by Carl H. Ernst and Roger W. Barbour, 1972 hardbound, 347 pps., \$22.50, published by The University Press of Kentucky, Lexington, Kentucky 40506.

A survey of current knowledge concerning the life histories of the forty-nine species of turtles native to the United States and Canada. Emphasis is upon the ecology, ethology, and natural history of turtles.

Living Turtles of the World by Peter C. H. Pritchard, 1967 hardbound, 288 pps., \$9.95, published by T. F. H. Publications, Inc., 211 West Sylvania Ave., Neptune City, N.J. 07753. Available at pet shops. 50¢ additional required if ordering direct from publisher.

Presents the physiology and habits of every living turtle species, with special sections on turtle evolution, turtle breeding, and the care and maintenance of pet turtles.

# 23-DAY KEEPER SAFARI TO AFRICA

Join others with the same interests on a fantastic photographic safari. You will be guided by a white hunter with 40 years experience in the bush. Your guide from Chicago will be Di Asch, organizer and veteran of five safaris. Your cost will be \$2,565, all inclusive, except for souvenirs, booze and film. You will live in the bush in tents, have home cooked meals and all your clothes will be washed and ironed for you. This will be a relaxed, fun-filled, educational trip of a lifetime—you need not lift a finger except to press the lever on your camera.

The safari will leave Chicago on January 31, 1975, and we will fly B.O.A.C. to Nairobi. We will be gone approximately 23 days and 19 of them will be spent in the bush, observing many of the same animals currently under your care.

For details and additional information, please contact Di Asch, 9441 S. Longwood Drive, Chicago, Illinois 60620.

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Rates are: Single, \$20.00; twin-double, \$26.00; triple, \$31.00; one bedroom suite, \$40.00 and \$5.00 per additional cot.

If you would like to present a paper or other type of program at Chicago, please contact Dennis Grimm, 204 Olmstead Road, Riverside, Illinois 60546.

Besides representing your zoo by attending, plan to have a picture poster of your zoo, to hang in the session room.

Hope to see you at the convention. Watch THE KEEPER for more details and information — 3 and more in '74.

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